REBROTOV, LEONID NIKOLAEVICH

Kulachkovye mekhanizmy. Moskva, Mashgiz, 1948. 283 p. diagrs.

Bibliography: p. 279-[282].

Cam gears.

CtY DLC: TJ206.R4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

RESHETOV, LEONID NIKOLAEVICH

Vybor naivygodneishei skhemy planetarnoi reversivnoi mufty. (Vestn. Mash., 1949, no. 6, p. 9-12)

Choice of the most efficient scheme for reversible planet couplings.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

RESHETOV, L. N.

K voprosu o konstruktsii melkikh nasosov. (Vestn. Mash., 1951, no. 3, p. 19-23)

Problem of designing small pumps.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953

122-5-5/35

AUTHOR: Reshetov, L.N. (Doctor of Technical Sciences, Professor)

TITLE: On One Drawback of Planetary Mechanisms with a Large Transmission Ratio (Ob odnom nedostatke planetarnykh mekhanizmov s bol'shim peredatochnym otnosheniyem)

PERIODICAL: Vestnik Mashinostroyeniya, 1957, Nr 5, pp.14-15 (USSR)

ABSTRACT: A simple analysis of a planetary gear shows that, at very large reduction ratios, there will be not only a sharp drop in the efficiency but also the nonuniformity on the output shaft is a multiple of the nonuniformity of the input motion, the factor being the reduction ratio. The numerical example of a simple planetary reduction gear with an overall ratio of 1000, shows a degree of nonuniformity of the output shaft, assuming ordinary precision of gear manufacture, amounting to 3.39. If the degree of nonuniformity exceeds 2 there will be periodic reversed motion of the output shaft. There are 2 illustrations and 3 Slavic references.

AVAILABLE: Library of Congress.

Card 1/1

RESHETOV, L.N., doktor tekhnicheskikh nauk , professor.

Designing of disk cams with the least clearance. [Trudy] M V T U no.65:21-24 '55. (MLRA 9:8)

(Cams)

RESHETOV, L.N., doktor tekhnicheskikh nauk, professor.

Structural formula for mechanisms with flexible coupling. [Trudy] M V T U no.65:17-20 '55. (MLRA 9:8)

(Couplings)

RESHETOV, L.N.

3279. Reshetov, L. N., Structural formulas for flexibly jointed mechanisms (in Russian), *Vopr. teorii mekhanizmov i mashin*; Moscow, Mashgiz, 17-20, 1955; *Ref. Zh. Mekh.* 1956, Rev. 3429.

A flexible joint is defined as a kinematic couple uniting two rigid links. It is shown that a cord imposes a single state of connection, whereas a belt implies three states of connection. Equations are written for the number of degrees of freedom of two- and three-dimensional mechanisms incorporating flexible joint connections, for which allowance is made by introducing an additional term in the form of a number of flexible couples. The use of these formulas requires a number of assumptions listed by the author; e.g. for the examples adduced by the author, of a lifting mechanism and the mechanism of a reversing excavator shovel, the formulas give 5 and 4 degrees of freedom, respectively, for a two-dimensional mechanism, and 8 and 4 correspondingly for the three-dimensional case. Having obtained this result, author indicates the simplest motions of the individual links corresponding to the number of degrees of freedom found, disregarding the fact that such motions as the swinging of pulleys on ropes and slipping of pulleys are not characteristic of the normal motion of a mechanism. In calculating the number of degrees of freedom of a three-dimensional mechanism, the number of general states of connection is not considered. The erroneous nature of the suggested method is obvious. F. M. Korovskii, USSR

Courtesy Referativnyi Zhurnal
Translation, courtesy Ministry of Supply, England

RESHETOV, L.N., doktor tekhnicheskikh nauk.

Defects in planetary mechanisms with large gear ratio. Vest.mash. 37 no.5:14-15 My '57. (MLRA 10:5)

(Gearing)

REŠETOV, M.

Mathematical Reviews
Vol. 14 No. 8
Sept. 1953
Analysis

8-9-54
LL

Rešetov, M. On the boundedness of solutions and characteristic numbers of a denumerable system of linear differential equations of triangular form. Izvestiya Akad. Nauk Kazah. SSR 1950, no. 97, Ser. Mat. Meh. 4, 109–114 (1950). (Russian)

The system under consideration is $\dot{x} = P(t)x$, P triangular. It is solved by successive approximations and one obtains again the bound of Persidskiĭ

$$\|x(t_0)\| \exp\left(-\int_{t_0}^{t} A(t')dt'\right) \leqq \|x(t)\| \leqq \|x(t_0)\| \exp \int_{t_0}^{t} A(t')dt', \quad t \geqq t_0.$$

In particular, if $A(t) \leqq a$, the characteristic number α of the solution of (1) other than $x = 0$ satisfies $|\alpha| \leqq a$.

S. Lefschetz (Princeton, N. J.).

VYSTAVKIN, N.I.; RESHETOV, M.; BARKOV, Yu.A.

Readers' letters. Bezop. truda v prom. 8 no.10:56 O '64. (MIRA 17:11)

1. Pomoshchnik glavnogo inzhenera po tekhnike bezopasnosti shakhty im. Oktyabr'skoy revolyutsii tresta Shakhtantratsit kombinata Rostovugol' (for Barkov).

Mathematical Reviews
Vol. 14 No. 8
Sept .1953
Analysis

Rešetov, M. On the boundedness of solutions and characteristic numbers of a denumerable system of linear differential equations of triangular form. Izvestiya Akad. Nauk Kazah. SSR 1950, no. 97, Ser. Mat. Meh. 4, 109–114 (1950). (Russian)

The system under consideration is $\dot{x} = P(t)x$, P triangular. It is solved by successive approximations and one obtains again the bound of Persidskiĭ

$$\|x(t_0)\| \exp\left(-\int_{t_0}^{t} A(t')dt'\right) \leqq \|x(t)\| \leqq \|x(t_0)\| \exp \int_{t_0}^{t} A(t')dt', \quad t \geqq t_0.$$

In particular, if $A(t) \leqq a$, the characteristic number α of the solution of (1) other than $x = 0$ satisfies $|\alpha| \leqq a$.

S. Lefschetz (Princeton, N. J.).

RESHETOV, M.F.

Modernization of the starter mechanism of the S-140 warping machine. Tekst.prom. 23 no.5:66 My '63. (MIRA 16:5)

1. Pomoshchnik mastera motal'no-snoval'nogo otdela Novo-Gorkinskoy fabriki, Ivanovskaya obl.

(Warping machines)

RESHETOV, N.P.

Meeting of the trade-union and plant activists of the Ministry of Chemical Industry. Khim.prom. no.4:250-252 Je'55. (MLRA 8:11)
(Chemical industries)

RESHETOV, N. P.
USSR/Chemistry - Miscellaneous FD-2534

Card 1/1 Pub. 50 - 13/14

Authors : I. F-t; A. S.; Reshetov, N. P.; Khasin, L.; S. K.; G. K.

Title : News items

Periodical : Khim. prom. No 4, 248-254, Jun 1955

Abstract : Contains items dealing with a branch conference of workers of the dyestuff industry held at Moscow in June 1955; party-economic "active" meetings at enterprises of the Main Administration of the Chemical Industry; a labor union-economic "active" meeting at the Ministry of Chemical Industry; improvements introduced by driller A. V. Dolinskiy at a potassium mine; chemical exhibits at the All-Union Agricultural Exposition; and a technical meeting in Leningrad at which the production of control appliances to be used in the rubber industry was discussed.

RESHETOV, P.D.; KHOKHLOV, A.S.

Study of streptothricins by ion exchange chromatography. Antibiotiki 9 no.3:197-201 Mr '64. (MIRA 17:12)

1. Institut khimii prirodnykh soyedineniy AN SSSR, Moskva.

KESHETOV, P.D., BLINOV, N.O.; KHOKHLOV, A.S.

Chromatographic comparison of polymycin with some streptothricin antibiotics. Antibiotiki 8 no.2:104-110 F'63. (MIRA 16:7)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(ANTIBIOTICS) (CHROMATOGRAPHIC ANALYSIS)
(POLYMYXIN)

RESHETOV, P. D.; KHOKHLOV, A. S.

"Production and characterization of individual streptothricin antibiotics."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Inst for Chemistry of Natural Compounds, AS USSR, Moscow.

89402

S/062/61/000/001/007/016
B101/B220

53700 2209, 1274, 1273

AUTHORS: Perevalova, E. G., Simukova, N. A., Nikitina, T. V., Reshetov, P. D., and Nesmeyanov, A. N.

TITLE: Interaction between ferrocene derivatives and aryl diazonia

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, no. 1, 1961, 77-83

TEXT: The authors have shown in Refs. 1-3 that ferrocene reacts with aryl diazonia to form aryl ferrocenes. The present paper deals with the arylation of p-tolyl, methyl, ethyl ferrocene, as well as acyl and carboxy ferrocenes. It was possible to arylate p-tolyl ferrocene by means of p-tolyl diazonium and this resulted in the formation of hetero-annular di-(p-tolyl) ferrocene:

$C_5H_5FeC_5H_4C_6H_4CH_3\text{-}p \xrightarrow{p\text{-}CH_3C_6H_4N_2Cl} Fe(C_5H_4C_6H_4CH_3\text{-}p)_2$. The yield amounted to only 9% of the theoretical one; this is attributed to the poor stability of the cation of this compound. Reaction between phenyl

Card 1/3

Interaction between ferrocene ... S/062/61/000/001/007/016
B101/B220

diazonium and methyl ferrocene resulted in a mixture of phenylated methyl ferrocenes from which it was possible to isolate the heteroannular methyl-phenyl ferrocene in a poor yield.

$C_5H_5FeC_5H_4CH_3 \xrightarrow{C_6H_5N_2X} CH_3C_5H_4FeC_5H_4C_6H_5$. The ethyl ferrocene reacted similarly (20% yield). Heteroannular dipropionyl, dibutyryl, and dibenzoyl ferrocene reacted with p-nitro-phenyl diazonium in the same way as observed in the case of diacetyl ferrocene. The bond between the iron and the cyclopentadienyl ring was split, and derivatives of 1,2,3-oxa-diazine were formed. Resinification took place in the reaction between p-nitro-phenyl diazonium and the dimethyl ester of ferrocene dicarboxylic acid. It was proved possible to isolate chromatographically a reduced amount of p-nitro-phenyl-dicarbomethoxy ferrocene, but the ferrocene ring was destructed at the same time (appearance of iron ions). Monosubstituted ferrocenes, such as acetyl ferrocene and carbomethoxy ferrocene, react with p-nitro-phenyl diazonium like ferrocene, but with a lower yield of arylation products. Monoacetyl ferrocene formed both homoannular and heteroannular p-nitro-phenyl acetoferrocene:

Card 2/ 3

Interaction between ferrocene...

$$C_5H_5FeC_5H_4COCH_3 \xrightarrow{p\text{-}NO_2C_6H_4N_2Cl} CH_3COC_5H_4FeC_5H_4C_6H_4NO_2\text{-}p$$

+ $C_5H_5FeC_5H_3(COCH_3)C_6H_4NO_2$-p. The methyl ester of ferrocene carboxylic acid reacts to form heteroannular p-nitro-phenyl carbomethoxy ferrocene (yield 7%). The presence or absence of the non-substituted cyclopentadienyl ring was always established spectroscopically. The free mono- and dicarboxylic acids of ferrocene as well as their sodium salts together with p-nitro-phenyl diazonium gave mixtures from which the arylation products could not be isolated. L. V. Yershova and M. Kristynyuk assisted in the experiments. There are 14 Soviet-bloc references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: July 28, 1959

BORISOV, V.I.; BRYUNIN, A.N.; VINOGRADOV, G.A.; RESHETOV, S.I.

[Printing industry] Poligraficheskoe proizvodstvo. Moskva, Iskusstvo, 1953. 221 p. (MLRA 6:10)

(Printing industry--Study and teaching)

RESHETOV, S.V.

Practice of gauging patterns by points in pattern bench work.
Stan.i instr. 25 no.1:20-22 Ja '54. (MLRA 7:2)
(Patternmaking)

RESHETOV, S. V.

USSR/Engineering - Die and Tool Designs

Card 1/1

Author : Reshetov, S. V.

Title : Precise Inspection of Dies during the Mechanization of Die and Tool Designing

Periodical : Stan. i Instr. Ed. 1, 20-22, Jan/1954

Abstract : Configurations and a general description are given of mechanized die and tool designing methods together with formulas for calculation of various dimensions and angles of die profiles. Drawings.

Institution : .....

Submitted : .....

RESHETOV, Sergey Vladimirovich; LIMONOV, Sergey Ivanovich; SHAMANIN, A.V., red.; SHENGER, V.A., red. izd-va; GVIRTS, V.L., tekhn. red.

[Grinding attachments for the finishing of multistage cutting tools] Shlifoval'nye prisposobleniia dlia obrabotki mnogostupenchatogo rezhushchego instrumenta. Leningrad, 1963. 14 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Mekhanicheskaia obrabotka metallov, no.4) (MIRA 16:5)

(Grinding machines--Attachments,
(Metal-cutting tools)

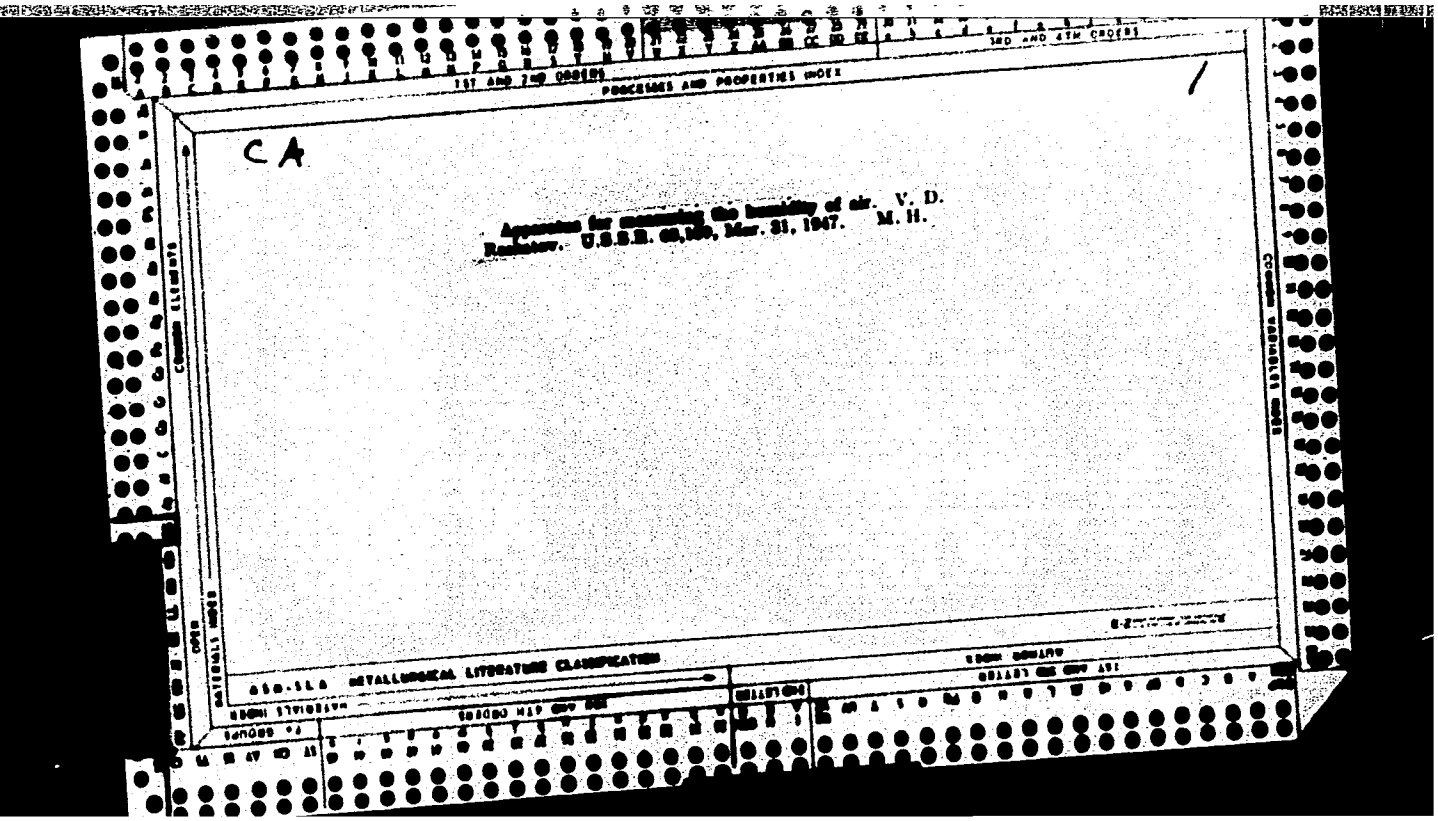
RESHETOV, Sergey Vladimirovich; GOL'TSEV, Nikolay Vasil'yevich; SATURIN, Boris Mikhaylovich; VERZHBINSKAYA, I.I., inzh., red.; SHILLING, V.A., red. izd-va; GVIRTS, V.L., tekhn. red.

[Experience in the mechanization of gauge work] Opyt mekhanizatsii lekal'nykh rabot. Leningrad, 1961. 27 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Mekhanicheskaia obrabotka metallov, no.12) (MIRA 14:9)
(Machine-shop practice)

BELINSKIY, Vasiliy Alekseyevich; POBIYAKHO, Vasiliy Afanas'yevich; BESHETOV, V.D., otv. red.; VLASOVA, Yu.V., red.; BRAYNINA, M.I., tekhn. red.

[Aerology]Aerologiia. Leningrad, Gidrometeoizdat, 1962. 463 p. (MIRA 16:2)

(Atmosphere)



Meshetov, V. D.

Gaygerov, S. S., Krichak, O. D., and Meshetov, V. D., "Experience of the Investigation of the Transformation of Air Masses with the Aid of Group Flights of Balloons," Trudy TsAO No 1, 1947

SO: U-3039, 11 Mar 1953

RESHETOV, V. D.

"The Problem of the Variation of the Wind Gradient with Height," Meteorologiya i Gidrologiya, Issue No. 1, 1949.

U-1442, 28 Aug 51

RESHETOV, V. D.

35211. V Zashchitu Teorii Volosnogo Gigrometra B. I. Sreznevskogo. Trudy Tsentr. Aerol. Observatorii, VVP. 5, 1949, s. 107-11

SO: Letopis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

In Defence of the Theory of I. B. Sreznevsky's Hair Hygrometer

REBHETOV, V. D.

"Results of Testing the Accuracy of the Formulas and Tables for the Determination of the Vertical Velocity of Pilot Balloons," Meteorol. i gidrologiya, No 10, 1953, pp 41-45

The author gives data on the fact that the turbulence of the atmosphere and thermal convective currents in it can lead to essential deviations of the vertical velocity of the pilot balloon from the tabulated computed values from a widely accepted formula. For making this problem more precise there were organized in the summer of 1952 basic observations (day and night) with pilot balloons without lights and with lights in Moscow, Riga, Novosibirsk, Baku, Tashkent, Irkutsk, Odessa, and Kiev. It was confirmed that in the space of the first 2 km from earth the vertical velocity of the pilot balloons without lights on the average was about 3% greater than the tabular value, but at higher altitudes it was equal to it on the average. In the author's opinion, besides the turbulence (which decreases the resistance of motion of the balloon) and also ascending currents, the general conditions of the weather (its degree of stability) and physicogeographical characteristics of the locality play an important part. Thus, in Riga (with unstable weather because of proximity to the sea) the deviations of vertical velocity reach plus 7%; in Baku (which is close to the mountains as well as to the sea) it is plus 8%; in Central Asia (with stable stratification of the atmosphere) the vertical velocities differ little from the tabulated ones. In each concrete case the deviations can be positive or negative, diverging considerably in absolute value from the average. While the influence of weather conditions was not successfully established in a clear manner, the author considers it expedient to introduce changes in the coefficients of the formula for the vertical velocity of pilot balloons. Observations on pilot

RESHETOV, V. D (continued)

"Results of Testing the Accuracy of the Formulas and Tables for the Determination of the Vertical Velocity of Pilot Balloons," Meteorol. i gidrologiya, No 10, 1953, pp 41-45

balloons with aditional load (lights) were conducted for the purpose of having a complete picture both day and night. Late in the evening in the absence of convective currents and damping of turbulent mixing the additional resistance to the lights leads to decrease of the vertical velocity of 4%, on the average. In Tashkent deviations even up to minus 8% were noted. In the bright daytime the decrease in resistance to the baloon caused by the turbulence of the atmosphere overlaps the additional resistance to the lights. In the first half of the day it was noted that, on the average, for the air layer from the earth up to 2 km the deviations are plus 4%, and for the layer from 2 to 4 km it is plus 1%. (RZhGeol, No 5, 1954)

SO: Sum. No. 568, 6 Jul 55

RESHETOV, V.D.; KHRGIAN, A.Kh., [redaktor]; BRAYNINA, M.I., [tekhnicheskiy redaktor].

Inertia and sensitivity of the hair hygrometer in low temperature. Trudy TSAO no.11:3-64 '53. (MLRA 8:5)
(Hygrometry)

RESHETOV, V. D.

AID P - 3177

Subject : USSR/Meteorology

Card 1/1 Pub. 71-a - 4/23

Author : Reshetov, V. D.

Title : On special diurnal changes in wind course in the atmosphere

Periodical : Met. i. gidr., 5, 22-23, S/O 1955

Abstract : The author mentions the mathematical analysis of the wind course computed by Izvekov. The article discusses the theory of the increased velocity during the day in the surface wind with the simultaneous dissipation of the kinetic energy in the atmosphere, and the nightly resumption of turbulence in the upper atmosphere layers. A mathematical analysis of diurnal variations is given. Four Russian references, 1943-1953.

Institution : None

Submitted : No date

RESHETOV, V.D.

Results of checking the accuracy of formulas and tables for determination of the vertical velocity of pilot balloons. Meteor.i gidrol. no.10:41-45 M-D '55. (MLRA 8:9)
(Balloons, Pilot)

RESHETOV, V.D.

Basis for delayed releases of radiosondes. Trudy TSAO no.16:3-9 '56. (MLRA 9:11)

(Radiosondes)

14-57-7-14686

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7, p 67 (USSR)

AUTHOR: Reshetov, V. D.

TITLE: Determination of Distances to Radio Transmitters (Ob izmerenii dal'nosti radiopilotov)

PERIODICAL: Tr. Tsentr. aerolog. observ., 1956, Nr 16, pp 52-58

ABSTRACT: Comparison of a slant distance to a radio transmitter, determined with the help of a radio receiver either from an operational base or from a point, indicates that the distance obtained by means of radio systematically exceeds the distance calculated by geometrical means. This exaggeration may be partially explained by arresting of excitation in the oscillator of the transmitter and in the antenna of the receiving station. The main factor in this phenomenon may be attributed to the slowing down of the response impulses

Card 1/2

Determination of Distances to Radio Transmitters (Cont.)

in the receiver of the radio-locating station. This is especially true if each resonance cascade in the receiver is considered as characterized by a specific sensitivity; this causes the resonance chains to be excited successively and contributes to the accumulation of arrestations. An illustrative calculation indicates that the error produced by these transmission processes may reach 365 m in a radio-determination of a distance. This answer is in agreement with experimental data. The author notes that the explanation presented by him should not be considered either as being exact or complete.

Card 2/2

M. G.

RESHETOV, V.D.

AUTHOR: Reshetov, V. D.

TITLE: Concerning the Features of Diurnal Pressure Pattern in Cyclones and Anticyclones (Ob osobennostyakh sutochnogo khoda davleniya v tsiklonakh i antitsiklonakh)

PERIODICAL: Meteorologiya i Gidrologiya, 1957, No. 2, pp. 24-26 (U.S.S.R.)

ABSTRACT: Hourly selected data of a mercury barometer of the Central Aerological Observatory were compiled separately for cases of high and low pressure covering the period 1952-53 in order to elucidate the question of the existence and nature of any distinctions in the diurnal pressure pattern in Highs and Lows and thereby explain the mechanism of formation of a baric field at the earth's surface. The barometric pressure readings were split into groups by seasons (warm and cold) and according to amount of pressure at 1300 hours. In the summer group, the low pressure cases included days when pressure (not referred to sea level) was under 985 mb. at 1300 hours. Days with pressure above 990 mb. at 1300 were placed in the summer high pressure group. In the winter low pressure group, days with pressures under 990 mb. at 1300 hours were included, while the winter high pressure group contained

Card 1/4

pressures exceeding 1000 mb. April-Sept. was the warm period and Oct.-Mar. was the cold period. 60 diurnal series of hourly observations were analyzed for each of the four groups, in which mean pressure was computed for each hour. As a result, diurnal pressure pattern in the warm and cold six month periods was derived separately for the days when the place of observations was situated in a region of low and in a region of high pressure. The chief conclusion from the studies consists in the fact that a 24-hour pressure is clearly revealed wherein the diurnal pattern of pressure in high and low pressure regions is opposite both in summer and winter, i. e., daytime pressure in the high pressure region is greater than at night and vice versa in the low pressure region.

Amplitude of the diurnal pattern computed separately for high and low pressure regions equals an average of 1.1 to 1.3 mb., whereas, in an analysis of the diurnal pattern without such a division according to the first plan, a 12-hour wave appears, having an amplitude not in excess of 0.5 to 0.8 mb. To check the results, a further calculation was conducted in which the same limits for high and low pressure were used but were applied to a nocturnal period (0100 hours) (Table 1).

Concerning the Features of Diurnal Pressure Pattern in Cyclones and Anticyclones

Developing his theories further, the author states that a deepening of cyclones (Lows, low pressure areas) and a strengthening of anticyclones (Highs, high pressure areas) during the day occurs owing to an intensification of the downward transfer of a more intensive circulation of the upper layers of a cyclonic or anticyclonic eddy caused in turn by increase in turbulent exchange during the day. However, this hypothesis is opposed by equations of hydrodynamics which indicate that the role of turbulent exchange in extent of movement is slight in layers having a small curvature of wind velocity profile.

Personalities cited include Kel'vin (1) (V. N. Obolenskiy in bibliography) whose propositions on the resonance character of pressure fluctuations excited by the upward flow of air during the daytime warming are considered inadequate by the author; A. N. Mertsalov (2), whose theories of decreased pressure in anticyclones and increased pressure in cyclones are inadequately based because the reverse picture is predominant; and N. Ye. Kochin and A. A. Dorodnitsin (not referenced by number) whose studies demonstrate that the consideration of turbulent viscosity in the free atmosphere leads to a substantial refinement of a model of overall atmospheric circulation.

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Concerning the Features of Diurnal Pressure Pattern in Cyclones and Anticyclones

The only figure given (Fig. 1, page 24) depicts the diurnal pressure pattern in Dolgoprudnaya near Moscow for high and low pressure regions in the warm and cold seasons for January 1956 and for May 1955. Pressures unreferred to sea level are on left and those referred to sea level are on right. Table 1 on page 25 gives the pressure pattern in millibars for high and low pressures at Dolgoprudnaya from 1949-1954 for 2 hour intervals, 0000 to 2200 hours in winter and summer.

There are two references, both of which are Slavic.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE:

Card 4/4

RESHETOV, V.D.

Preparations made by the Central Aerological Observatory for the International Geophysical Year. Mezhdunar. geofiz. god no.3:83-85 '57. (MIRA 11:5)

(Meteorology)

RESHETOV, V.D.

Analyzing two cases of cyclogenesis and anticyclogenesis. Trudy TSAO no.23:3-15 '57. (MIRA 11:5)

(Cyclones)

V. [illegible], Main Aerological Observatory (Dolgoprudnaya, near Moscow)

"Die Praeparierung der Ballone zur Erreichung grosser Hoehen," Zeitschrift fuer Meteorologie, Jan-Feb 1956.

RESHETOV, V.D.

Studying the variability and the diurnal march of winds in the atmosphere. Trudy TSAO no.21:3-51 '58. (MIRA 11:11)
(Winds)

RESHETOV, V.D.

Radiation overheating of comb radiosondes and its effect on the results of atmospheric sounding. Trudy TSAO no.24:59-71 '58. (MIRA 12:1)

(Radiosondes)

RESHETOV, V.D.

Development of methods and instruments for aerological observations at the Central Aerological Observatory. Trudy TSAO no.26:27-38 '59. (MIRA 12:5)

(Meteorological research)

RESHETOV, V.D.

3(7) P-2 PHASE I BOOK EXPLOITATION SOV/3030

Leningrad. Tsentral'naya aerologicheskaya observatoriya

Nekotoryye voprosy fiziki oblakov (Some Problems in Cloud Physics) Moscow, Gidrometeoizdat (otd.) 1959. 94 p. (Series: Its: Trudy, vyp. 30) 650 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (title page): A.M. Borovikova; Ed. (inside book): M.I. Sorokina; Tech. Ed.: T. Zemtsova.

PURPOSE: This collection of articles is intended for meteorologists and geophysicists.

COVERAGE: This is a collection of seven articles on problems in cloud physics. All articles were written between 1955-1958 but their publication was withheld for technical reasons. Individual articles discuss the origin of the subfrontal section in warm front cloud systems, radar scattering by non-spherical particles, unipolar charges in aerosols and atmospheric electricity, and the conditions of

Card 1/3

ice crystal growth in the free atmosphere. A base line theodolite method for surveying clouds is described, and a compound for obtaining replicas of cloud elements discussed. References accompany individual articles.

TABLE OF CONTENTS:

Some Problems in Cloud Physics SOV/3030

Kondrat'yev, N.N. The Method and Results of Base Line Theodolite Surveying of Clouds 84

AVAILABLE: Library of Congress

Card 3/3

TM/gmp
1-21-60

PHASE I BOOK EXPLOITATION SOV/4646

Reshetov, Vadim Dmitriyevich

Otkloneniya vetra ot gradiyentnogo i yavleniya nestatichnosti v atmosfere (Deviation of Wind From the Gradient Direction and Nonstatic Phenomena in the Atmosphere) Moscow, Gidrometeoizdat, 1960. 93 p. Errata slip inserted. 1,200 copies printed.

Sponsoring Agencies: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR; Tsentral'naya aerologicheskaya observatoriya.

Resp. Ed.: S.M. Shmeter; Ed.: L.V. Blinnikov; Tech. Ed.: I.M. Zarkh.

PURPOSE: This book is intended for aerologists, synoptic meteorologists, and scientific personnel in the field of the physics of atmosphere and dynamic meteorology.

COVERAGE: The book presents the results of studies of wind deviation from isohypses, and of velocity deviations of actual wind from gradient wind, depending on the thermobaric field of the atmosphere. Deviation of the vertical distribution of pressure from the static is explained by the method

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of comparing the barometric heights of radiosondes with the geometric heights. It is shown that the phenomena of nongeostrophic and nonstatic state are interrelated, since both states are dependent on a nonuniform horizontal distribution of masses (density) in the atmosphere and on the effect of turbulent viscosity. The data of these investigations are used to explain the origin of cyclones and anticyclones. No personalities are mentioned. There are 14 references: 10 Soviet, 3 English, and 1 German.

TABLE OF CONTENTS:

33056

3,5120
3,5131

S/169/61/000/012/052/089
D228/D305

AUTHOR: Reshetov, V. D.

TITLE: Hypothesis of the aerosol origin of atmospheri ozone

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1961, 14, abstract 12B98 (Tr. Tsentr. aerol. observ., 1960, no. 37, 30-48)

TEXT: The author proposes the hypothesis of the generation of atmospheric ozone by an atmospheric aerosol, on the basis of which it is suggested that free radicals, whose association and decomposition lead to the formation of ozone, rise above the surface of moist aerosol particles in consequence of selective sorption (desorption). At the boundary of the water-air division, water molecules are oriented in such a way that the OH^- hydroxyl ions are principally situated close to the outer

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Hypothesis of the...

surface layer's inner part. In consequence of the thermal movement of molecules in the surface layer, conditions arise for the pre-eminent breaking away and withdrawal of valency-satiated hydroxyl ions into the air together with water-vapor molecules.

The change of the OH^- hydroxyl ions into free OH radicals is accomplished through the donation of a single electron to any one particle--for example, to an aerosol particle. The free radicals thus arising at and above the surface of aerosol droplets decompose with the formation of ozone and hydroxonium:

$$\left.\begin{aligned} OH + O_2 &\rightarrow O_3 + H \\ H + H_2O + M &\rightarrow H_3O + M \end{aligned}\right\} \quad (1)$$

or

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Hypothesis of the...

$$\left.\begin{aligned} OH + O_2 &\rightarrow O_2H + O \\ O + O_2 + M &\rightarrow O_3 + M \\ O_2H + H_2O &\rightarrow H_3O + O_2 \end{aligned}\right\} \qquad (2)$$

The probability of (1) and (2) increases with the increasing degree of aerosol dispersion and during the processes of evaporation and heating of aerosol particles. The process of ozone formation as a result of the accumulation of hydrogen peroxide on aerosol particles is possible together with processes (1) and (2):

$$2OH + M \rightarrow H_2O_2 + M \qquad (3)$$

The formation and accumulation of hydrogen peroxide in an aerosol medium occurs at low temperatures. On the increase of the

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Hypothesis of the...

temperature and under the action of light, hydrogen peroxide disintegrates with the formation of ozone. The formation of the layer with an increased concentration of ozone at a height of 25 - 35 km is, in the opinion of the author, explained by turbulence transfer from the underlying layers and by the evaporation of a cold aerosol in the temperature-inversion region, accompanied by the desorption of hydroxyl and hydrogen peroxide with the subsequent formation of ozone. The author relates the ozone maximum near the 70th parallel to the existence at these latitudes in the stratosphere of a focus of relatively warm air, in which the aerosol is evaporated, to the incoming regulated vertical currents, and to turbulence transfer. The sharp increase in the amount of ozone at the end of the polar night is, in the author's opinion, caused by the photolysis of the hydrogen peroxide accumulated in the cold aerosol of arctic air during the polar winter in consequence of the selective adsorption and association of hydroxyl by aerosol particles at low temperatures.

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3305

S/169/61/000/012/052/089
D228/D305

Hypothesis of the...

Considerations are adduced about the aerosol's role in the fluctuations in the quantity of ozone in connection with cyclogenesis, anticyclogenesis, föhn winds, cloudiness, and fog. The suggestion is expressed concerning the fact that a zone with a heightened ozone concentration must exist in inversions over stratus and strato-cumulus clouds. 18 references. [Abstracter's note: Complete translation.]

Card 5/5

S/076/60/034/06/27/040
B015/B061

AUTHOR: Reshetov, V. D. (Moscow)

TITLE: Unipolar Charges of Aerosols

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6, pp. 1320-1325

TEXT: It is known that the charge of hydrosol particles is closely connected with the pH of the medium. In this case it was investigated whether the electrokinetic phenomena of hydrosols were also valid for aerosols. The tests were carried out in a metal chamber (50 × 50 × 70 cm) with two isolated steel electrodes (1.6 cm from one another). A dense mist was produced by atomization of different substances, and it was observed whether electrophoresis took place. The diagrams obtained (Fig. 1) show that with aerosol mists, as with hydrosols, electrophoresis occurs. The charge of the particles depends on the pH of the medium. When pH > 5 there is a depositing mainly on the cathode, and when pH < 5, on the anode. This can be explained by a selective adsorption of the hydrogen ions. It was observed that the pH of the deposits on the

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cathode with drop- and dust-aerosols is some 0.2-0.4 pH higher than on the anode, i.e., the charging of the particles takes place during the establishment of the selective sorption equilibrium by an ion exchange with the medium. The charge of the particles was calculated with consideration of two factors, namely the chaotic movement and the electrophoresis. A value of $\pm$150 elemental charges was established as the maximum charge of the aerosol particles examined. A comparison of the data obtained with those of Natanson (Ref. 1) could not be carried out (because Natanson used surface-active substances), but the observations of N. A. Bakh and A. Gil'man (Ref. 2) are in good agreement with the statements here. There are 2 figures and 5 references: 3 Soviet and 2 German.

SUBMITTED: August 19, 1958

RESHETOV, V. D

PHASE I BOOK EXPLOITATION SOV/6115

Pinus, N. Z., ed.

Atmosfernaya turbulentnost', vyzyvayushchaya boltanku samoletov (Atmospheric Turbulence Causing Airplane Bumps). Moscow, Gidrometeoizdat, 1962. 166 p. Errata slip inserted. 1400 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR. Tsentral'naya aerologicheskaya observatoriya. Ed.: L. V. Blinnikov; Tech. Ed.: I. M. Zarkh.

PURPOSE: The book is intended for meteorological and aerodynamics specialists and for persons connected with the organization and supervision of aircraft flights.

COVERAGE: This book describes the effect of turbulent air on the stability of an aircraft in flight.

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SOV/6115

Atmospheric Turbulence Causing Airplane Bumps

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Atmospheric Turbulence Causing Airplane Bumps SOV/6115
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AVAILABLE: Library of Congress

SUBJECT: Aerospace

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AD/dk/jw
1/6/63

15266-66 EWT(1)/FCC GW

ACC NR: AR5016453 SOURCE CODE: UR/0169/65/000/003/B035/B037

23
B

AUTHOR: Reshetov, V.D.

ORG: none

TITLE: Physical principles of variations in atmospheric circulation under the influence of ageostrophic and nonstatic factors

SOURCE: Ref. zh. Geofizika, Abs. 6B235

REF SOURCE: Tr. Tsentr. aerol. boserv., vyp. 59, 1964, 11-19

TOPIC TAGS: atmospheric circulation, troposphere cyclone, stratosphere, anticyclone, atmospheric density

TRANSLATION: A study of ageostrophic and nonstatic factors in atmospheric motion (RzhGFiz., 1962, 12B252) shows that the chief causes of the formation of cyclones and anticyclones are to be found in Archimedes' principle and in ageostrophic winds. A diagram is presented of the formation of a cyclone (or anticyclone) under the influence of an insufficient (or excessive) density of the troposphere. Analogous physical phenomena are also observed when local excessive or insufficient density is observed in the stratosphere. It is easy to evaluate the latter by high or low pressure areas at 50 and 100 mb: as a rule, high pressure zones at this level have excessive density.

UDC: 551.513:551.515.1

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L 15266-66

ACC NR: AR5016453

at low pressure, the density is insufficient. Since ductility increases with altitude, its ventilative effect increases simultaneously. Due to this, in areas of excessive density (high pressure) in the stratosphere, with the development of a descending motion the in-flow in the upper layers becomes stronger than in the lower layers of the stratosphere or upper troposphere. Therefore, in areas of excessive density in the stratosphere there occurs a summary convergence, and in areas of insufficient density - a summary divergence. Thus, anticyclogenesis start developing near the earth's surface whereas cyclogenesis develops under a stratospheric cyclone. In instances of stratospheric disturbances, the adiabatic warm-up of a descending motion only serves to strengthen the stratospheric anticyclone and to further decrease the density of the stratosphere. Simultaneously with the development of anticyclonic or cyclonic circulation in the stratosphere (with increasing wind velocities and gradients) the dissipation of kinetic energy also increases. The dissipative component of ageostrophic wind always moves towards low-pressure areas. Therefore, in the presence of a certain optimal development of the anticyclonic vortex, the outflow of its air into the stratosphere and the troposphere exceeds the effect of Archimedes' principle. The anticyclone is either stabilized or begins slowly to break down. In an analogous form the inflow of air into the cyclone at all levels under the effect of dissipative deflection of wind gradients results in its stabilization or checking. Through an analysis of the displacement and evolution of areas of excessive or insufficient densities, it is possible to evaluate the zones of summary convergence or divergence, the areas of rising or descending motion (and therefore to a considerable degree the

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ACC NR: AR5016453

precipitation) and the evolution and motion of baric formations. Rules are cited for analyzing the origin, evolution and displacement of baric formations on the basis of an evaluation of ageostrophic and nonstatic factors, and also on the experience gained from analyzing the formation of precipitation layers, based on the motion of the formation of vertical motion under the influence of nonstatic energies in the presence of excessive or insufficient density and of dissipative divergences or convergences. Z. Makhover.

SUB CODE: 04

Card 3/3

L 22650-66 EWT(1)/FCC IJP(c2)/GS

ACC NR: AT6008756 SOURCE CODE: UR/2789/65/000/062/0026/0077

AUTHOR: Reshetov, V. D.

ORG: none*

TITLE: Time-wise variability of meteorological elements

SOURCE: *Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 62, 1965. Voprosy izmenchivosti vetra i drugikh elementov tsirkulyatsii v atmosfere (Problems of the variability of wind and other elements of atmospheric circulation), 26-77

TOPIC TAGS: stratospheric meteorology, stratospheric wind, stratospheric temperature, stratospheric humidity, stratospheric pressure

ABSTRACT: Results are presented of a very detailed investigation of the time-wise variability (time intervals up to 12 hr) of meteorological elements (wind direction and speed, pressure, temperature, and relative humidity) at altitudes from 20—30 km. In addition, determinations were made of some of the relationships between the variability of these elements and wind speed. The quantitative characteristics of these meteorological elements were determined for the warm and cold seasons of the year from meteorological observations for the 1960—1961 period at the Moscow (Dolgoprudnyy), Murmansk, Baku, Khabarovsk, Yakutsk, and Petropavlovsk (Kamchatka) aerological stations. A series of supplemental radiosonde ascents were made over a period of 15—20 days at a rate of 2—3 per hr at the Moscow, Khabarovsk, and

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L 22650-66

ACC NR: AT6008756

Petropavlovsk stations. All numerical data and a brief description of calculation procedures used in analyzing these data are given in extensive appendixes at the end of the monograph (pp. 54—77). The following conclusions were derived. 1) Wind—the time-wise variability in wind speed reached a maximum at a height of 10 km in both summer and winter; in the stratosphere during the summer the variability was slight except in the south where it achieved its maximum values, increasing from north to south. Wind direction variability was minimum near a height of 8 km in the northern regions and 10—12 km in the central and southern regions, with maximum time-wise variability occurring at about 20 km in the summer and 20—25 km in the winter. The variability in the average differences in wind speed, determined at 6-hr intervals and calculated in minutes and seconds, increased in proportion to the square root of the interval (as other investigators had found). 2) Temperature—the time-wise variability of temperature in the troposphere was found to have a minimum at a height of 1—2 km and a maximum near 10 km; in the stratosphere the minimum was near 15 km, increasing sharply at 25—30 km. 3) Pressure—a minimum in the time-wise variability of pressure generally was observed at a height of 1—2 km and a maximum at 10 km. Above this level the mean absolute pressure differences decreased monotonically, while the relative variability of pressure with height increased more or less monotonically. 4) Relative humidity—a well-expressed maximum occurred in the lower troposphere, its height varying with latitude and time of year. In the stratosphere (in spite of low-accuracy radiosonde hygrometers), there was a significant variability at a height of 20—30 km, especially in the wintertime over northern and central European USSR. 5) Errors—errors in measurements made at 6-hr intervals generally were found not to exceed 30%, and for 12-hr intervals, 20%.

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L 22050-66
ACC NR: AT6008756

Measurements made at 3-hr intervals at 20—25 km heights were adjudged to be suitable for scientific purposes only, with 8-hr intervals considered optimum for practical purposes. It was found that using this interval at heights up to 20 km, the average errors were 6—8 m/sec for changes in wind speed, 20—40 degrees for wind direction, 3C for temperature, 15% for relative humidity, and 12 dm for the heights of isobaric surfaces. Orig. art. has: 10 figures, 15 formulas, and 15 tables. [ER]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 012/ ATD PRESS: 4216

Card 3/3

L 21676-66 EWT(1)/ECC GW

ACC NR: AT6008761 SOURCE CODE: UR/2789/65/000/062/0138/0146

AUTHOR: Reshetov, V. D.

ORG: Central Aerological Observatory (Tsentral'naya aerologicheskaya observatoriya)

TITLE: Evolution of initial disturbances in circulation

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 62, 1965. Voprosy izmenchivosti vetra i drugikh elementov tsirkulyatsii v atmosfere (Problems of the variability of wind and other elements of atmospheric circulation), 138-146

TOPIC TAGS: meteorology, weather forecasting, atmospheric circulation, atmospheric pressure

ABSTRACT: A theoretical procedure is developed to express laws defining changes of atmospheric circulation with time. The approach was to calculate the pressure field for several months in advance, taking into account the state of the atmosphere at different heights, including the stratosphere. The paper is based first on the author's previously derived equation expressing local changes in pressure, which takes into account the ageostrophic and nonstatic nature of atmospheric motion (consisting of three right-hand terms describing the effects of nonstatic Archimedes forces, the divergence of the ageostrophic wind with uneven advection and curved isohypses, and the increase or decrease of air masses in a vertical column caused by ageostrophic winds). Although an exact solution for this equation is yet to be made, calculations based on semiempirical relationships indicated by this equation are possible. Since

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the first and third terms are unaffected by advection or transfer, the future state of the pressure field can be sought as a function of the initial deviation in pressure or heights of isobaric surfaces from some average state, or of their Laplacians, above a given point. If the former method is used, the horizontal scale of the pressure and wind fields will be a radius of about 1000 km. The second equation describes the interconnection between a future state of the pressure field at the earth's surface and the initial parameters in the form of a second-degree polynomial containing deviations in pressure and in heights of isobaric surfaces, or their Laplacians:

$$p_0' = y H_{500}' \Delta H_{100} + z \Delta H_{100} p_0' + u H_{500}' p_0' + v \Delta H_{100} + w H_{500}' + N p_0' \qquad (1)$$

Since this equation is not time-dependent, the coefficients of the initial parameters can be determined by any convenient series of observations. One graph of their variation with time (months) is presented. This graph indicates that the values of the coefficients can be roughly approximated by functions of the form

$$k_i = e^{-p_i t} \sin(\omega_i t + b_i), \qquad (2)$$

and, therefore, the atmospheric process described by initial deviations in the pressure field at various heights is oscillatory and the initial disturbances are attenuated exponentially. However, the period of oscillations is not constant, being

about 3.2 months at all heights in the summer and averaging about 5 months in the winter (with considerable variation). These figures are judged to be of limited value since the data on which they are based cover a period of only two years. The different periods for summer and winter indicate that the evolution of circulation and the change in the atmospheric oscillatory process depend more on the state of the atmosphere as an oscillating system than on initial disturbances. Formula (1) can be used to calculate pressure fields for 0.7—3 months in advance by using the graph values of the coefficients. The accuracy of this type of calculation was tested in five experiments in 1963. Analyses by the Central Institute of Forecasts indicated that 54% of the predictions of the sign of pressure anomalies were accurate, 64% for temperature anomalies, and 57% for precipitation anomalies based on circulation caused by computed pressure anomalies. It is concluded that the formulas presented can be used to construct empirical formulas for calculating the field of monthly pressure anomalies in advance for 2 to 3 months; the attenuation decrements of initial disturbances in the pressure and wind fields at the ground surface and at the 100-mb surface usually ranges from minus 0.3 to minus 0.9 per month; however, it is much smaller for the 500-mb level than in other layers, and in the winter the initial disturbances often increase for the following two months; and the mean monthly circulation of winds over a given region can be regarded as the circulation set up by the pressure field compressing the mean climatic field plus the pressure anomaly of the current month. Orig. art. has: 3 formulas, 1 figure, and 2 tables. [EO]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 004/ ATD PRESS: 4219

RESHETOV, V.

Study of equations of hydrodynamics for the atmosphere. Trudy TSAO no.53:3-20 '64. (MIRA 17:10)

KHRABROV, Yu.B., doktor geograf. nauk, prof.; RESHETOV, V.D., kand. fiz.-matem. nauk

Complex method and the problem of long-range weather forecasting. Meteor. i gidrol. no.5:51-54 My '64.
(MIRA 17:6)

1. TSentral'nyy institut prognozov i TSentral'naya aerologicheskaya observatoriya.

Reshetov, V.D.

AID Nr. 981-3 3 June

CONFERENCE AT CENTRAL AEROLOGICAL OBSERVATORY (USSR)

Meteorologiya i gidrologiya, no. 3, 1963, 60. S/050/63/000/004/002/002

The following are among the reports presented at a recent session of the Scientific Council of the Central Aerological Observatory: 1) N. Z. Pinus -- an experimental investigation of the wind field at altitudes of 7 to 11 km, certain peculiarities of the mesostructure of the wind field, and the statistical characteristics of horizontal and veritical wind fluctuations in the jet stream zone in different regions of the European USSR and Siberia; 2) S. M. Shmeter -- the process of cumulonimbus cloud development and a proposed model of the structure of the fields of meteorological elements near the upper third of such clouds at different stages of development; 3) V. D. Reshetov -- the use of hydrodynamic equations for determining the interdependence of ageostrophic, nonstatic, and nonstationary atmospheric motions and a more

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AID Nr. 981-3 3 June

CONFERENCE AT CENTRAL AEROLOGICAL [Cont'd] S/050/63/000/004/002/002

accurate form proposed for writing such equations; 4) I. F. Kvaratskheliya -- conditions for the formation of sharp changes of vertical wind shear in the upper half of the troposphere over the Transcaucasus; 5) A. I. Ivanovskiy and A. I. Repnev -- the hydrodynamics of the upper atmosphere, taking into account the chemical reactions occurring under solar influence; 6) V. V. Kostarev, A. M. Borovikov, and A. B. Shupyatskiy -- certain radar criteria for identifying the hail content of clouds and criteria for evaluating the effect of cloud modification; and 7) A. G. Gorelik -- certain results of radar investigations of the wind field at altitudes of 50 to 700 m. [ET]

Card 2/2

POLYAKOV, S.V., doktor tekhn.nauk; LORDKIPANIDZE, R.S., kand.tekhn.nauk; RESHETOV, V.I., inzh.

Modern earthquakeproof buildings with reinforced concrete bearing elements in the Rumainian People's Republic. Bet. i zhel.-bet. 9 no.2:93-3 of cover. F '63. (MIRA 16:5)
(Rumania--Earthquakes and building)
(Rumania--Reinforced concrete construction)

RESHETOV, V.P.

Advantages of the new gauge width. Put' i put.khoz. 6 no.2:11 '62. (MIRA 15:2)

1. Nachal'nik Atkarskoy distantsii puti Privolzhskoy dorogi.
(Railroads--Track)

L 54552-65 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) Pc-4/Pr-4 IJP(c) JD/RM

ACCESSION NR: AP5016718 UR/0286/65/000/010/0019/0019

AUTHORS: Baybayev, A. I.; Gamburg, D. Yu.; Reshetov, V. P.; Shagiyan, Sh. K.

TITLE: A method for improving the properties of carbon black. Class 12, No. 170923

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 19

TOPIC TAGS: carbon black, methane, cracking inert gas

ABSTRACT: This Author Certificate presents a method for improving the properties of carbon black by roasting it in a stream of an inert gas. The carbon black (separated from the gases produced in electrocracking of methane by chilling them with a vapor condensate at a temperature not lower than 250C) is roasted at a temperature of 900-1100C.

ASSOCIATION: none

SUBMITTED: 30May62 ENCL: 00 SUB CODE: GC

NO REF SOV: 000 OTHER: 000

Card 1/1

RESHETOV, V.P.

For a safer and more picturesque line. Put'i put.khoz. no.7:16-17 Jl '59. (MIRA 12:10)

1. Nachal'nik distantsii, stantsiya Atkarsk, Privolzhskoy dorogi. (Railroads--Track)

PONOMAREV, A.A.; TIL', Z.V.; PESHEKHONOVA, A.D.; RESHETOV, V.P.

Study of furan compounds. Part 9: Synthesis and hydration of tertiary γ-furylalkanols. Zhur.ob.khim. 27 no.5:1369-1374 My '57. (MLRA 10:8)

1.Saratovskiy gosudarstvennyy universitet.
(Furan)

UTUYZH, A.P., inzh.; RESHETOV, V.P.; MAKAROV, A.F.

Letters to the editor. Put' i put.khoz. 4 no.9:44 S '60.
(MIRA 13:9)

1. Pomoshchnik revizora po bezopasnosti dvizheniya, stantsiya Bryansk, Kalininskog dorogi (for Utyuzh). 2. Nachal'nik distantsii puti, stantsiya Atakrsk, Privolzhskoy dorogi (for Reshetov). 3. Nachal'nik distantsii puti, stantsiya Kovylkino, Kuybyshevskoy dorogi (for Makarov).
(Railroads)

L 42009-65 EWT(d)/EPF(n)-2/EWP(k)/EWP(h)/EWP(l)/EWP(v) Pq-4/Pa-4/Pf-4/Pg-4/
ACCESSION NR: AT5009735 Pae-2/Pu-4/Pk-4/Pl-4UR/0000/65/000/000/0148/0182
LJP(c) WW/GS/BC

AUTHOR: Dmitriyev, A.N.; Reshetov, V.V.

TITLE: The orthogonal method for the determination of the running dynamic characteristics and the design of correcting filters for analytical adaptive systems of automatic control

SOURCE: Analiticheskiye samonastraivayushchiyesya sistemy avtomaticheskogo upravleniya (Analytical adaptive control systems). Moscow, Izd-vo Mashinostroyeniye, 1965, 148-182

TOPIC TAGS: orthogonal function expansion, approximation accuracy, dynamic system characteristic, correcting control filter, analytical adaptive system, automatic control, spectral analyzer

ABSTRACT: Numerous earlier papers have pointed out the usefulness of orthogonal series for the determination of the dynamic characteristics of various systems (see, e.g., E. Mishkin, L. Brown, Adaptive control systems, McGraw-Hill, 1961). The present paper investigates several methods for the determination of the running dynamic characteristics for cases when the input interaction may be not only a specified but also an arbitrary function of time. Such methods, known in the Soviet Union and elsewhere, are very involved (see, e.g., V. V. Solodovnikov, Statisticheskaya dinamika lineynykh sistem

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L 42009-65
ACCESSION NR: AT5009715

avtomaticheskogo upravleniya Fizmatgiz, 1960; E. Mishkin, R.A. Haddad, Identification and command problems in adaptive system. JRE Wescon Convention Record, 1959).

In all cases, one must first represent various signals through orthogonal series, and then the question of the accuracy of the approximation becomes of paramount importance. The study shows that this accuracy is affected strongly not only by the choice of the particular orthonormal system of functions, but also by the individual parameters of such a system (e.g., the weight coefficient). An efficient selection of the right orthogonal series can result only from a painstaking analysis (using analogue or digital computers) of the approximation of typical signals present within the system. Brown spectral analyzers seem to be the most acceptable devices for the determination of the spectra. However, as a rule, they are unstable and, therefore, new, stable spectral analyzers of simple construction and free of the usual shortcomings are proposed. Once the correct decomposition of the running dynamic characteristics is achieved, it is easy to calculate the parameters of the correcting control filter in the time as well as in the frequency region. During the generation of controlled changes by means of the correcting filter, the readjustment of the filter must occur rapidly and within sufficiently wide limits, and the article discusses the design of flexible filters capable of substantially changing their dynamic characteristics.

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L 42009-65

ACCESSION NR: AT5009735

A method is also proposed for an adaptive system within which controlled changes follow a calculation of input interactions and the results are then forwarded to the real system. Orig. art. has: 118 formulas, 19 figures, and 1 table.

ASSOCIATION: none

SUBMITTED: 15 Dec64 ENCL: 00 SUB CODE: IE, MA

NO REF SOV: 007 OTHER: 003

Card 3/3

LORDKIPANIDZE, R.S.; RESHETOV, V.Ye.

Seismic regionalization of the Rumanian People's Republic and methods for calculating earthquake resistance. Trudy Inst. stroi.mekh. i seism. AN Gruz. SSR 9:197-200 '63. (MIRA 17:12)

1 (1)

AUTHOR: Reshetov, Ye. A. SOV/6-59-5-8/26

TITLE: From the Working Experience of the Multi-purpose Brigades in the Erection and Reconnaissance of Geodetic Points (Iz opyta raboty kompleksnykh brigad na postroyke i rekognostsirovke geodezicheskikh punktov)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 5, pp 23-24 (USSR)

ABSTRACT: In 1958 multi-purpose parties were employed, with the team of V. I. Larionov (Kazakhskoye aerogeodezicheskoye predpriyatiye (Kazakh Aerogeodetic Enterprise)) in the erection and reconnaissance of geodetic points. The reasons for the organization of such brigades were the following: (1) The necessity of carrying out simultaneously the reconnaissance and erection of control points in the mountainous Taiga region; (2) shortage of reconnaissance men and means of transport; (3) frequent delays encountered by the construction brigades; (4) increased responsibility for good visibility between the points on the part of those carrying out the work. - A multi-purpose brigade consisted of 1 technician and 5-6 workers (like an ordinary construction party). - This method has the following advantages:

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(1) Saving of means and reduction of manpower required; (2) reduced demand for means of transport; (3) higher responsibility on the part of the construction workers for visibility in all directions; (4) no delays due to lack of reconnaissance data. - The main shortcomings of this method are as follows: (1) the frequent absence of the technician when the control point is erected; (2) the possibility that, due to a project modification in its section, on the part of an executive body, there is no visibility at all at the section boundaries. - Good preparation will eliminate all these shortcomings. There are 1 figure and 1 table.

L 56533-65

ACCESSION NR: AP5016790

UR/0286/65/000/010/0138/0138
66.097.3 : 691.4

AUTHOR: Dobryanskiy, A. F.; Kokurin, A. D.; Reshetov, Ye. I.

TITLE: A method for producing active clay. Class 12, No. 93513

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 138

TOPIC TAGS: active medium, clay, acid catalyst

ABSTRACT: This Author's Certificate introduces a method for producing active clay by acid treatment. The clay is first heated to 100-200°C at a pressure of 10-17 atmospheres in water with the addition of catalysts, e.g. mineral acid salts and then treated in acid.

ASSOCIATION: none

SUBMITTED: 16Dec50 ENCL: 00 SUB CODE: ES, GC

NO REF SOV: 000 OTHER: 000

Card 1/1

RESHETOV, Ye.I., glavnyy inzhener

Over-all organization of work in stopes. Mekh.trud.rab.9 no.8: 18-21 Ag'55. (MLRA 8:10)

1. Shakhta "Polysayevskaya-1"
(Coal mines and mining)

1. ABEIOV, S. P., REZNIKOV, YE. I.

2. USSR (600)

4. Coal Mines and Mining

7. Steadfast increase in the productivity of coal combines. Mekh. trud. rab. 6, no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

RESHETOV, Ye.S.

Field dental office. Voen.-med. zhur no.6:77-78 Je '58. (MIRA 12:7)
(MEDICINE, MILITARY AND NAVAL
field dental office (Rus))
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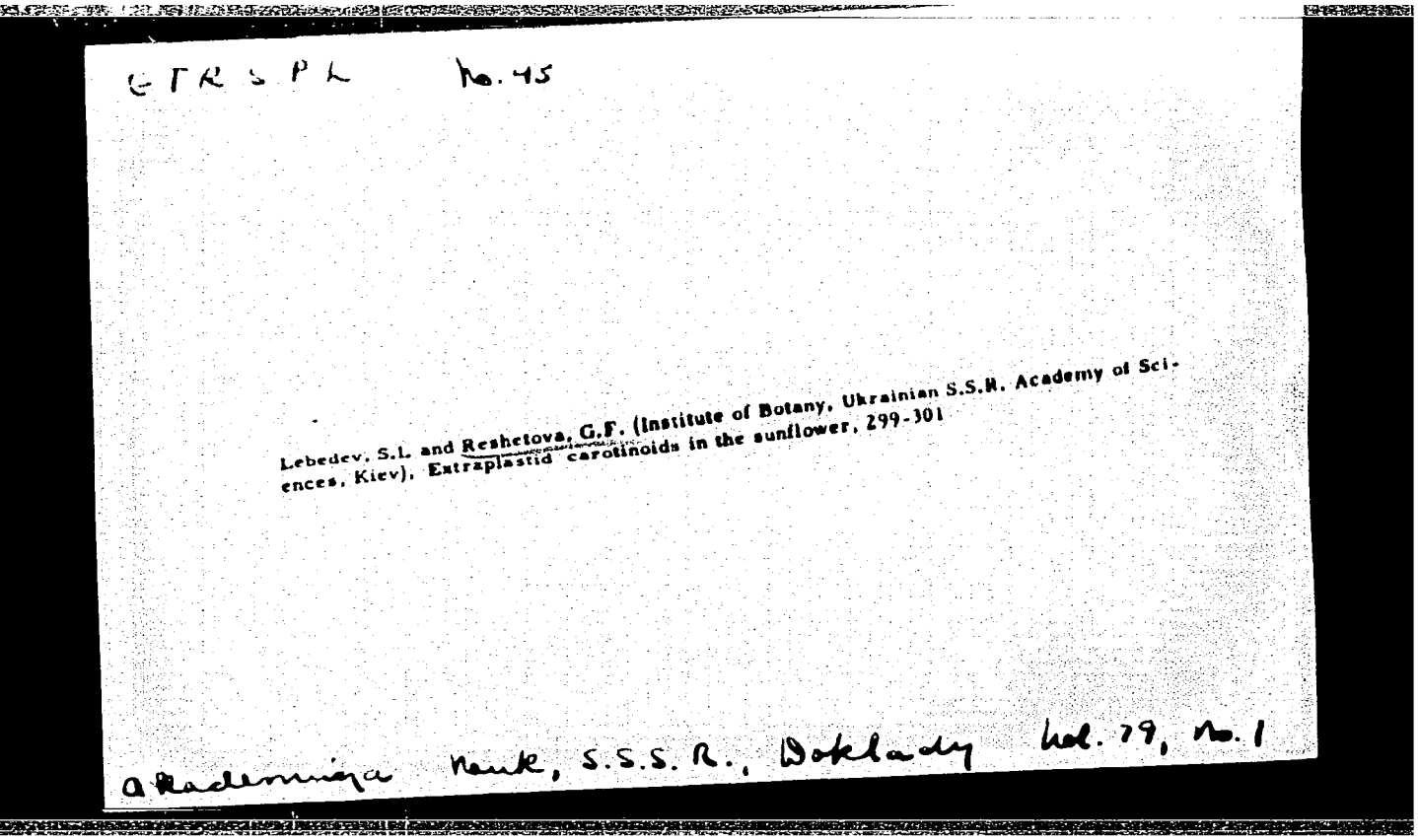

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